The language of cognition: From the world to the mind and back

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0. Introduction

Our conception of the world is based on sensory perception and cognition in the sense that our sensory system determines the kinds of stimuli we are capable of perceiving. It thus affects our understanding of (i) the entities we perceive, (ii) the point(s) of view on the perceived situation we are able to select, and (iii) our decisions concerning what attracts our attention (the *figure* in the terminology of Talmy 2000) as against what remains backgrounded (the *ground*). We also hold conceptions about our mental activities as such; these conceptions are reflected in the linguistic expressions that designate mental activities. By studying linguistic expressions of perception and cognition we can find out how language conceptualizes events that take place in our mental world, how we construe the participants of these events and the relationships that exist between the participants. In other words, such a study scrutinizes our LINGUISTIC FOLK MODEL of the interaction between the mind and the world. In this article I study this folk model in the way it is represented in one Finno-Ugric language, Finnish, with special attention to three areas:

(1) **Perception verbs**: I compare the Finnish system of perception verbs with the few existing typological models (Viberg 2001).

(2) **Perception as fictive motion** of a signal between the EXPERIENCER and the STIMULUS (for a more detailed analysis see Huumo 2010).

(3) **The use of directional locatives in the coding of cognitive relationships** where no actual motion takes place – these include verbs with meanings such as 'find' (+ a separative case), 'forget' or 'leave' (+ a lative case).

In particular, (3) has been under lively discussion both within Finnish studies and international general linguistics. Earlier explanations for the phenomenon (in particular, Rahkonen 1977; Dahl 1987; Fong 1998, 2003, and Kracht 2002, 2005) have been based on temporal features of the event and the nature of the locational relationship, but in my view ignored the central semantic contribution of the verb, which is to indicate a cognitive change that takes place in the experiencer. The relevant verbs indicate the inception or cessation of a cognitive relationship between a human reference point (a "cognizer") and the stimulus, which is also the trajector of the

locative relationship (roughly, the entity situated within the location). As I have argued before (Huumo 2006, 2007), in Finnish such a cognitive change is often represented as fictive motion between the trajector and its location, and reflects the tendency to associate inceptive cognitive relationships with fictive motion away from a location and cessative cognitive relationships with fictive motion into a location – i.e., quite literally "from the world to the mind and back".

1. The Finnish system of perception verbs: A typological point of view

1.1. An overview

Events of sensory perception canonically include (at least) two participants, an experiencer E (an animate entity that perceives something) and the stimulus S (the entity perceived by E). The experiencer is an animate capable of sensory perception, whereas the nature of the stimulus is more variable: it can be a concrete entity (*I saw a dog*), an event or state of affairs (*I saw the dogfight*), a substance (*I saw light*) or an abstract mental content (*I saw the time on the clock; I saw it on the news that the president had died*), cf. Dik & Hengeveld 1991. The stimulus can also be some kind of a signal, especially in the sensory domains of hearing, smelling and tasting: *I heard birdsong*; *I felt the smell of blue cheese*. A substantial division needs to be drawn between agentive, volitional perception, where E actively observes its surroundings, and passive, non-volitional perception where E is merely the experiencer of a sensation. The cognitive scientists Edelman and Tononi (2000: 22) have argued that human consciousness in general can be divided into these two kinds, which they call "passive" and "active" consciousness:

> *Consciousness can be passive as well as active and effortful. When we let sensory input freely take possession of our conscious states, paying no attention to this or that in particular, consciousness is receptive and broad as it is natural and effortless, as for example, when we stroll down the streets and enjoy the sights of the town. On the other hand, when we specifically search for some item in the constant flow of sensory input to which we are exposed, perception becomes an action-oriented activity. The English language has incorporated the distinction between passive and active perception: seeing and watching, hearing and listening, feeling and touching.*

Another crucial feature in the linguistic expression of perception is that language tends to designate perception as a **directional** relationship. Expressions indicating the location of either the EXPERIENCER or the STIMULUS (i.e., one participant of the perceptive relationship) often take a directional marking (adposition or case). Examples include *I can see you **from** here*; ***From** my office I can see **to** the mountains*; *I can smell that cheese **from** where I am standing*; *I heard the news **from** Bill*. In this section, I will take a closer look at the Finnish system of perception verbs, after

which I proceed to discuss the conceived directionality of perception in Finnish in Section 2.

1.2. Viberg's (2001) typology of perception verbs

In his typological studies on verbs of perception Viberg (1984: 124–127, 2001: 1295) has argued that these verbs can be divided into two main types: (a) **experiencer-based** verbs, which select the experiencer as the subject and the stimulus as the object – i.e., transitive verbs of perception (*I see you*; *John heard the birdsong*; *I smelt the blue cheese*); (b) **phenomenon-based** verbs, which select the stimulus as the subject and leave the experiencer outside their argument structure or code it as an oblique (*The cheese smelt horrible*; *An alarm sounded*). Experiencer-based verbs are further divided into two classes: (a1) **activity verbs** (agentive verbs of perception – e.g., *look*, *listen*) whose subject argument (the experiencer) also contains features of an agent since the perception is controlled and intentional; (a2) **experience verbs** (non-agentive verbs of perception, e.g., *see*, *hear*), where the subject carries more purely the role of an experiencer: it is a passive participant and perception is not controlled.

Viberg's examples of phenomenon-based verbs include sentences like *Peter looked sad*, *Peter sounded sad*, and *The cloth felt soft,* which indicate perception but also carry the additional meaning of an impression caused by the perceptive event in the (implicit) experiencer. This kind of "additional" meaning is not indicated by the experiencer-based (transitive) verbs listed by Viberg. For instance, the transitive clause *I saw Peter at the bus stop* indicates pure visual perception, whereas the intransitive example *Peter looked sad* also indicates an evaluation made by the experiencer-speaker based on what is perceived. Thus it may be asked whether it is precisely this class of intransitive verbs that should be included in a classification of basic verbs of perception. Another candidate would be a verb class indicating pure **perceptibility**; i.e., only the referent of the subject (the stimulus) is perceptible to any potential experiencer that might enter the situation. Such verbs would carry meanings like 'be visible; show' (as in *Does the scar still show?*), '[emit] smell' (*The flowers smell in the garden*), 'be audible; sound' (*An alarm sounded*), and so on. Such verbs are not discussed in Viberg's typology, and a possible reason might be that in many languages there is no distinguishable class of such verbs. In Finnish, however, this class is very productive and systematic, and therefore I will include it in the discussion that follows.

1.3. The Finnish system of perception verbs in the light of Viberg's typology

Table 1 below shows the Finnish system of basic verbs of perception (originally from Alhoniemi 1975), where verbs of "pure perceptibility" are

selected as the class of "phenomenon verbs". Finnish thus shows a clear-cut tripartite system where each sense modality is expressed by three (basic) verbs: one phenomenon verb indicating general perceptibility, one non-agentive experience verb and one agentive activity verb.

MEANING	**phenomenon**	**experience**	**activity**
	intransitive	transitive, non-agentive	transitive, agentive
vision	*näky-* 'be visible'	*näke-* 'see'	*katso-* 'look; watch'
hearing	*kuulu-* 'be audible'	*kuule-* 'hear'	*kuuntele-* 'listen'
smell	*haise-* '[emit] smell'	*haista-* '[feel a] smell'	*haistele-* 'smell' [ag.]
taste	*maistu-* 'taste'	*maista-* 'taste'	*maistele-* 'taste'
touch	*tuntu-* 'feel'	*tunte-* 'feel'	*tunnustele-* 'feel'

Table 1. Finnish verbs of perception (stems)

From the morphological point of view it can be observed that most activity verbs (with the exception of the agentive verb of vision) are derived from the experience verbs by adding the affix *-ele* (e.g., *haista-* + *-ele-* → *haistele-*) and possibly other derivational material. Elsewhere this affix has a frequentative meaning – e.g., *aivasta-* 'sneeze (once)' + *-ele-* → *aivastele-* 'sneeze (repeatedly)' – but in verbs of perception it does not necessarily indicate a frequentative meaning (involving repetition) but rather the meaning of an activity. The basic agentive verb of visual perception is *katso-* – i.e. a different stem from the experience verb *näke-*, but it can be pointed out that there is also a derived activity verb *katsele-* 'watch', which morphologically resembles the other activity verbs listed in Table 1.

Most of the phenomenon (perceptibility) verbs are derived from the experience verbs by adding the derivative affix *-U* (e.g., *näke-* + *-U-* → *näky-*), which has been called a reflexive but actually indicates many kinds of intransitive meanings not always involving reflexivity. The overall picture is thus that in most sensory domains the perceptibility verbs and activity verbs are derived from experience verbs. This might be seen as reflecting the central status and neutral meaning of the experience verbs between the two other classes. An exception is the domain of smell, where the phenomenon verb has the morphologically simplest form (the stem *haise-*); the experiencer verb *haista-* is derived from this stem by adding the affix *-tA*.

1.4. A problem with the classification: What count as Finnish phenomenon verbs?

As pointed out in the previous section, one problem with Viberg's typology when applied to Finnish is the nature of the phenomenon verbs. The verbs included in Viberg's system as phenomenon-based perception (with the additional meaning of an evaluation) can be expressed in Finnish by using an idiomatic construction, with different verbs in different sensory domains: some of the domains use the corresponding perceptibility verb, while others have a distinct verb (not listed in Table 1) to indicate this meaning. In this construction the nature of the subjective impression is indicated by a locative case-marked element typically in the ablative 'from' case (sometimes the allative 'to' case is an alternative). I call this construction the *sense-impression construction.* The examples below are thus counterparts to Viberg's examples.

(1) *Peter* *näyttä+ä* *surullise+lta.*
Peter look+PRES.3SG sad+ABL
'Peter looks sad.'

(2) *Peter* *kuulosta+a* *surullise+lta.*
Peter sound+PRES.3SG sad+ABL
'Peter sounds sad.'

(3) *Vaate* *tuntu+u* *pehmeä+ltä (~pehmeä+lle).*
cloth feel+PRES.3SG soft+ABL (~ALL)
'The cloth feels soft.'

(4) *Juusto* *haise+e* *paha+lta (~paha+lle).*
cheese smell+PRES.3SG bad+ABL (~ALL)
'The cheese smells bad.'

(5) *Juusto* *maistu+u* *hyvä+ltä (~hyvä+lle).*
cheese taste+PRES.3SG good+ABL (~ALL)
'The cheese tastes good.'

Examples (1) and (2) show that in the domains of vision and hearing such expressions include separate verbs not listed in Table 1 (*näyttä-*, *kuulosta-*), whereas (3), (4) and (5) show that in the other sensory domains (smell, taste and touch) the phenomenon verbs are used in this construction. However, in Finnish this meaning is construction-specific, as shown by the basic use of the phenomenon verbs which indicates pure perceptibility of the stimulus; consider (6) through (10), in which the locative element is not obligatory (though it makes the context-free examples more natural); I call this the perceptibility construction.

(6) *Laiva* *näky+y* *(horisonti+ssa).*
ship be.visible+PRES.3SG horizon+INE
'A ship can be seen [is visible] (on the horizon).'

(7) *Linnunlaulu* *kuulu+u* *(puu+sta).*
birdsong sound+PRES.3SG tree+ELA
'Birdsong is sounding (from the tree).'

(8) *Juusto* *haise+e* *(keittiö+ssä).*
cheese smell+PRES.3SG kitchen+INE
'The cheese smells (in the kitchen).'

(9) *Valkosipuli* *maistu+u* *(keito+ssa).*
garlic taste+PRES.3SG soup+INE
'The soup tastes of garlic' or (without the locative element:) 'Garlic tastes [good]'.

(10) *Pulssi* *tuntu+u* *(kaula+lla).*
pulse feel+PRES.3SG neck+ADE
'One can feel the pulse (on the [patient's] neck).'

In the sensory domains where there is no distinct verb to indicate an impression evoked by the perception (smell and taste), a bare SV construction can sometimes be interpreted as an elliptical form of either construction type. In the sensory domain of touch, however, the locative indicating the nature of the impression is obligatory in order to evoke this meaning.

(11) *Juusto* *haise+e.*
cheese smell+PRES.3SG
'One can smell [that there is] cheese' or 'The cheese has a particular kind of smell [strong or bad]'.

(12) *Valkosipuli* *maistu+u.*
garlic taste+PRES.3SG
'One can taste that there is garlic [e.g., in a food]' or 'The garlic tastes good'.

(13) *Jää* *tuntu+u* *(kylmä+ltä).*
ice feel+PRES.3SG cold+ABL
'One can feel the ice' (without the ablative element) or 'Ice feels cold' (with the ablative element).

These two construction types are interrelated in many domains but remain separate in the central domains of vision and hearing. Semantically, the perceptibility construction is more neutral and easily characterized as indicator of basic sensory perception, whereas the sense-impression

construction has a more specific kind of meaning and involves other features in addition to sensory perception.

1.5. On the aspectual ambiguity of verbs of perception

Viberg (2001: 1296) points out that especially verbs of experience are ambiguous between inchoative and static readings (e.g., *see* 'become aware of something by vision' vs. 'perceive something continuously by vision') and that they mark their arguments non-canonically by taking a dative subject in many languages. Activity verbs indicate a process and phenomenon verbs a state. Aspectual ambiguity may also occur in activity verbs if the activity can be understood as an accomplishment. Consider the following examples, and note the case marking of the object which expresses the aspectual opposition between boundedness (examples (15) and (17)) vs. unboundedness (examples (14) and (16)):

(14) *Katso+i+n* *elokuva+a.*
watch+PST+1SG movie+PAR
'I was watching the movie.'

(15) *Katso+i+n* *elokuva+n.*
watch+PST+1SG movie+ACC
'I watched the [whole] movie.'

(16) *Kuuntel+i+n* *laulu+a.*
listen+PST+1SG singing+PAR
'I was listening to [the] song / singing.'

(17) *Kuuntel+i+n* *laulu+n.*
listen+PST+1SG singing+ACC
'I listened to the [whole] song.'

Another idiosyncratic feature of Finnish perception verbs related to aspectual object marking is that the experience verbs take the accusative object even when they indicate a state. In general, the accusative object is only used with telic verbs that indicate an accomplishment or an achievement, and is thus associated with high transitivity (see Helasvuo 2001 for a general discussion). It is normally the partitive that marks objects in examples that are atelic, progressive, or cessative (i.e., the activity is terminated but not accomplished). Thus in Finnish, non-canonical argument marking of experience verbs shows up (not in the subject but) in the object. All examples below are aspectually ambiguous between inchoative vs. static readings:

(18) *Nä+i+n* *Liisa+n.*
see+PST+1SG Liisa+ACC
'I saw Liisa' (could be 'I noticed Liisa by vision' [inchoative] or 'I was visually perceiving Liisa' [continuous]).

(19) *Tuns+i+n* *kuumuude+n.*
feel+PST+1SG heat+ACC
'I felt the heat.'

(20) *Maisto+i+n* *valkosipuli+n.*
taste+PST+1SG garlic+ACC
'I tasted [the] garlic.'

(21) *Haisto+i+n* *ruusu+n.*
smell+PST+1SG rose+ACC
'I smelt roses [e.g., in the air].'

A final detail related with aspectual object marking of perception verbs is that the experience verbs in (20) (*maistaa* 'taste') and (21) (*haistaa* 'smell') sometimes allow an agentive interpretation (as activity verbs), even though there are separate activity verbs for both sensory domains. Interestingly, here the experience vs. activity distinction is reflected in the object marking, which seems to go directly against the general rule according to which the partitive indicates low and the accusative high transitivity. With these two verbs, namely, the accusative results in the experience reading (as in (20) and (21) above), whereas the partitive produces the activity reading (as in (22) and (23)):

(22) *Maisto+i+n* *valkosipuli+a.*
taste+PST+1SG garlic+PAR
'I [intentionally] tasted the garlic.'

(23) *Haisto+i+n* *ruusu+a.*
smell+PST+1SG rose+PAR
'I [intentionally] smelt a rose.'

In sum, the non-canonical argument marking of experience verbs is in many ways reflected in the marking of their object but not their subject.

2. On factors motivating the use of directional locatives in expressions of sensory perception in Finnish

2.1. Directionality of perception

As pointed out above, language often designates perception as a directional relationship, in the sense that expressions indicating the location of the EXPERIENCER or the STIMULUS (i.e., one participant of the perceptive

relationship) are often marked directionally (by a preposition or case), even though the participants are not actually moving into or out of their locations. Talmy (2000) argues that at least in the domain of vision there is a productive conceptualization strategy involving *fictive motion*: vision is conceived as involving the motion of a fictive signal between the participants, and this fictive motion motivates the use of dynamic locatives. A closer look reveals that two opposite directionalities are at work in the conceptualization of perception: (a) EXPERIENCER → STIMULUS, where the EXPERIENCER emits a signal towards the STIMULUS, and (b) STIMULUS → EXPERIENCER, where the STIMULUS emits a signal towards the EXPERIENCER. In this section I introduce the factors that motivate the directional case marking of expressions indicating the location of the two participants of a perceptive relationship in Finnish (see also Huumo 2010). Two features that make Finnish an interesting case in point are (1) that Finnish allows the directionality between the participants of a perceptive relationship to vary, and there is a semantic motivation for the variation; and (2) that in general Finnish is very productive in its use of directional cases (and adpositions), not only in expressions where the participants are in actual motion but also when a (fictive) energy or an abstract content is in motion between the participants. Such other uses are discussed in Section 3, after introducing the system of directionality in perception verbs. The following sections provide examples of possible directionalities in different sensory domains and with the different verb classes within each domain.

2.2. Our primary sense: sight

***Näke-* 'see' [experience]**

a) The location of the EXPERIENCER:

With the verb *näke-* 'see', the location of the EXPERIENCER can be expressed either with a 'from' case (suggesting a conceptualization with the directionality E → S) or a 'to' case (S → E):

(24) *Näe+n* *Liisa+n* *nojatuoli+sta+ni.*
see+PRES.1SG Liisa+ACC armchair+ELA+1SG.PX.
'I see Liisa from my armchair.'

(25) *Pekka* *näk+i* *paraati+n* *parvekkee+lta+an.*
Pekka see+PST.3SG parade+ACC balcony+ELA+3SG.PX
'Pekka saw the parade from his balcony.'

(26) *Pekka* *näk+i* *paraati+n* *parvekkee+lle+en.*
Pekka see+PST.3SG parade+ACC balcony+ALL+3SG.PX
'Pekka saw the parade "onto" his balcony.'

(27) *Näe+n* *Liisa+n* *nojatuoli+i+ni.*
see+PRES.1SG Liisa+ACC armchair+ILL +1SG.PX
'I see Liisa "into" my armchair.'

The 'from' cases in (24) and (25) are the unmarked option, as opposed to the more marginal (though acceptable) 'to' cases in (26) and (27). A 'to' case in those examples seems to emphasize the ability of E to perceive, and to imply that there are no obstructions between the participants. For instance, example (26) implies that Pekka need not change his location to see the parade, and (27) is suitable in a situation where Liisa is going to perform something and her visibility to the viewer is relevant. A static ('in'/'on'/'at') case is also marginally possible, but typically static cases are used to designate either the location of the STIMULUS alone (see below in b) or an all-embracing setting where both the EXPERIENCER and the STIMULUS are situated.

b) The location of the STIMULUS

The neutral way to designate the position of the STIMULUS is a static ('in'/'on'/'at') case:

(28) *Nä+i+n* *kato+lla* *linnu+n.*
see+PST+1SG roof+ADE bird+ACC
'I saw a bird on the roof.'

A 'from' case is possible if the perceptive event is understood as involving the motion of a signal or the transfer of a mental content from the STIMULUS towards the EXPERIENCER. In such expressions the object canonically codes the moving signal or mental content, and the entity emitting the signal is coded as a source:

(29) *Nä+i+n* *mere+ltä* *laiva+n* *valo+t.*
see+PST+1SG ocean+ELA ship+GEN light+PL.NOM
'I saw the lights of a ship in ["from"] the ocean.'

(30) *Nä+i+n* *numero+si* *puhelinluettelo+sta.*
see+PST+1SG number+ACC.2SG.PX phone.book+ELA
'I got your number from the phone book.' [lit. "I saw your number from the phone book."]

Compare (30) with (31) where the static case inessive is used:

31) *Nä+i+n* *numero+si* *puhelinluettelo+ssa.*
see+PST+1SG number+ACC.2SG.PX phone.book+INE
'I saw [that] your number [was] in the phone book [I had thought you had a secret number].'

Because the 'from' cases are suitable in contexts where the STIMULUS is a mental content acquired by the EXPERIENCER, they may sometimes be a source of metonymy. For instance in (32), the static locative allows a reading where the object refers to a person, whereas the directional locative in (33) requires a conceptualization with the object constituting a mental content that is in motion. This in turn triggers the metonymy where the object indicates a television show named after the person.

(32) *Nä+i+n* *televisio+ssa* *Jerry Springer+in.*
see+PST+1SG television+INE Jerry Springer+ACC
'I saw Jerry Springer [the person] on TV.'

(33) *Nä+i+n* *televisio+sta* *Jerry Springer+in.*
see+PST+1SG television+INE Jerry Springer+ACC
'I saw *Jerry Springer* [the show] on [lit. "from"] TV.'

As pointed out above, the 'to' case marking of the location of the EXPERIENCER (E → S directionality) foregrounds the EXPERIENCER'S ability to perceive something and indicates that there are no obstructions along the visual path. A similar meaning is sometimes present when the 'from' case indicates the location of the STIMULUS (again S → E directionality), especially when the object refers to a concrete entity and there are potential obstructions on the path; cf. (34):

(34) *Näe+n* *Liisa+n* *verho+n* *takaa.*
see+PRES.1SG Liisa+ACC curtain+GEN from-behind
'I can see Liisa ["from"] behind the curtain [where Liisa is behind the curtain].'

Example (34) also accepts a static postposition (*takana*); the difference is that the 'from' postposition *takaa* in (34) foregrounds the perceptive path between the EXPERIENCER and the STIMULUS ('I can see Liisa even though she is behind the curtain')[1], whereas the static postposition indicates a plain location with no implications concerning the path. The difference becomes clearer if the examples are negated, because now the scope of negation depends on the selection of a static vs. a dynamic postposition. The static *takana* in (35) implies that the location itself is visible to the EXPERIENCER but the STIMULUS is not there (the locative relationship itself is under the scope of negation). In contrast, the dynamic 'from' postposition *takaa* in (36) implies that the STIMULUS is in the location but not visible to the experiencer because the path is obstructed. Now it is thus the perceptive

[1] This reading becomes clearer with a verb like *erottaa* 'make out', which agrees more directly with the overall constructional meaning than the verb *nähdä* 'see'. My thanks are due to an anonymous reviewer for pointing this out to me.

event (including the fictive motion along the path) and not the locative relationship that is negated.

(35) *En* *näe* *Liisa+a* *verho+n* *takana.*
NEG.1SG see Liisa+PAR curtain+GEN at-behind
'I cannot see Liisa behind the curtain [because she is not there].'

(36) *En* *näe* *Liisa+a* *verho+n* *takaa.*
NEG.1SG see Liisa+PAR curtain+GEN from-behind
'I cannot see Liisa [because she is hidden] behind the curtain.'

The third logically possible option, a 'to' case, seems to be possible only if no particular stimulus is specified (there is no object NP) but the sentence merely describes the general extent of the experiencer's visual field:

(37) *Näe+n* *ikkuna+sta+ni* *vuor+i+lle.*
see+PRES.1SG window+ELA+1SG mountain+PL+ALL
'I can see to the mountains from my window.'

***Katso-* 'look; watch' [activity]**

a) The location of the EXPERIENCER

The agentive visual perception verb *katso-* strongly favors the 'from' case as indicator of the location of the EXPERIENCER; the 'to' case does not appear to be possible at all. Agentivity thus seems to strongly favor the directionality E → S; i.e., the EXPERIENCER-AGENT is conceptualized as emitting a signal (fictive energy) towards the STIMULUS.

(38) *Katso+i+n* *oppilas+ta* *tuoli+sta+ni [*tuoli+i+ni].*
look+PST+1SG student+PAR chair+ELA+1SG.PX
[*chair+ILL+1SG.PX]
'I looked at the student from my chair.'

A static 'in'/'at'/'on' case is possible as an indicator of the position of the EXPERIENCER if the event is understood as internal activity of the EXPERIENCER rather than interaction between two participants: in (39) and (40), both the static inessive and the 'from' case elative are possible:

(39) *Isä* *katso+i* *nojatuoli+ssa+an* *televisio+ta.*
father watch+PST.3SG armchair+INE+3PX television+PAR
'Father was watching TV in his armchair.'

(40) *Isä* *katso+i* *nojatuoli+sta+an* *televisio+ta.*
father watch+PST.3SG armchair+ELA+3PX television+PAR
'Father was watching TV in his armchair.'

b) The location of the STIMULUS

To indicate the location of the STIMULUS, a static case is possible but not as productively employed as it is when the verb *näke-* 'see' is used. There seems to be a tendency to understand the static case-marked expression as either an all-embracing setting (if it precedes the object) or as an NP-internal modifier of the object NP (if it follows the object):

(41) *Katso+i+n* *kato+lla* *lintu+a.*
watch+PST+1SG roof+ADE bird+PAR
'I watched the bird on the roof [I was also on the roof].'

In example (28) with the verb *näke-* 'see', it is quite natural to analyse the expression *katolla* as an independent verb modifier indicating the position of the STIMULUS (the bird) alone, but in (41) there is a strong tendency to analyse it as a setting where both the EXPERIENCER and the STIMULUS are situated.

The position of the stimulus can also be indicated with a 'from' case, in which case the object must refer to a mental content the EXPERIENCER receives during the perceptive event:

(42) *Katso+i+n* *televisio+sta* *uutiset.*
watch+PST+1SG television+ELA news
'I watched the news on [lit. "from"] TV.'

***Näky-* 'be visible; show [intransit.]' [phenomenon]**

a) The location of the EXPERIENCER

Even though the EXPERIENCER remains implicit (and is understood as generic) with the verb *näky-*, its location can be indicated by adverbials in very much the same way as in expressions with the experience verb *näke-* 'see'; i.e., both a 'to' case and a 'from' case are possible:

(43) *Kirkko* *näky+y* *asema+lta ~ asema+lle.*
church be.visible+PRES.3SG station+ELA ~ station+ALL
'The church is visible from the station' or 'One can see the church from the station'.

However, the unmarkedness of the 'from' case (as opposed to the 'to' case) observed above with *näke-* 'see' disappears, and both alternatives appear to be equally neutral.

b) The location of the STIMULUS

A static case can be used to indicate the position of the STIMULUS if the existential nature of the relationship between the STIMULUS and the location is foregrounded – i.e., the meaning is of the type 'There is X in Y', whereas a 'from' case can be used if the visibility itself is foregrounded:

(44) *Patsas* *näky+y* *tori+lla.*
statue be.visible+PRES.3SG marketplace+ADE
'A/The statue can be seen [is situated] on the marketplace.'

(45) *Patsas* *näky+y* *tori+lta.*
statue be.visible+PRES.3SG marketplace+ELA
'The statue shows from the marketplace [to the location of the implicit EXPERIENCER].'

2.3. Our other distant senses: hearing and smelling

A crucial difference between verbs of vision and verbs of hearing or smelling is that in the events of hearing and smelling, the STIMULUS is more typically a signal moving between the participants of the relationship (i.e., a noise or a smell). Though this conceptualization also plays a role in visual perception, it is much more restricted there than in the other sensory domains. (Recall, however, the expressions with a 'mental content' type STIMULUS above.) In hearing and smelling, the literal referent of the phrase indicating the STIMULUS may quite often be alternatively a concrete entity emitting a signal or the signal itself (e.g., *I heard a bird* vs. *I heard birdsong*). Panther and Thornburg (2003) emphasize the role of metonymy in such expressions.

It is also natural (and sometimes almost necessary) to use terminative particles together with locatives modifying verbs of seeing and hearing. Such particles indicate meanings such as 'all the way to / from' and foreground the distance between the participants and their ability to perceive in spite of the distance. Without such particles, some of the following examples would be less natural.

Kuule- 'hear' and *haise-* 'smell' [experience]

a) The location of the EXPERIENCER

As was the case with the visual experience verb *näke-* 'see', the location of the EXPERIENCER can often be designated either by a 'from' case or by a 'to' case. It also appears to be more natural to use a terminative particle in the relevant expressions:

(46) *Koira* *haisto+i* *roskakori+n* *kadu+lle* *asti.*
dog smell+PST.3SG garbage.bin+ACC street+ALL TERM
'The dog could smell the garbage bin all the way to the street.'

(47) *Koira* *haisto+i* *roskakori+n* *kadu+lta* *asti.*
dog smell+PST.3SG garbage.bin+ACC street+ABL TERM
'The dog smelt the garbage bin all the way from the street.'

(48) *Kuul+i+n* *musiiki+n* *makuuhuonee+see+ni.*
hear+PST+1SG music+ACC bedroom+ILL+1SG.PX
'I heard the music "into" my bedroom.'

(49) *Kuul+i+n* *musiiki+n* *makuuhuonee+sta+ni.*
hear+PST+1SG music+ACC bedroom+ELA+1SG.PX
'I heard the music from my bedroom [i.e., I was in the bedroom].'

However, as the 'from' case very often and productively designates the location of the STIMULUS (see below), there is often ambiguity in examples like (47) and (49): example (47) can also (perhaps more naturally) take on the reading where it is the garbage bin that is on the street and (49) the reading where the music is coming from the bedroom. In contrast, (46) and (48) only allow the reading where it is the EXPERIENCER who is in the location designated by the locative elements.

b) The location of the STIMULUS

As with the verb *näke-* 'see', the location of the STIMULUS (if it is a concrete entity) can be designated by a static case (examples (50 and (51)). However, the 'from' cases are also possible in this function, and their range of use is wider than in expressions of visual perception (examples (51) and (53)): they can be used even when the object refers to a concrete entity.

(50) *Kuul+i+n* *puu+ssa* *satakiele+n.*
hear+PST+1SG tree+INE nightingale+ACC
'I heard a nightingale in the tree.'

(51) *Kuul+i+n* *puu+sta* *satakiele+n.*
hear+PST+1SG tree+ELA nightingale+ACC
'I heard a nightingale "from" the tree.'

(52) *Haisto+i+n* *viemäri+ssä* *kuollee+n* *rota+n.*
smell+PST+1SG sewer+INE dead+ACC rat+ACC
'I smelt a dead rat in the sewer.'

(53) *Haisto+i+n* *viemäri+stä* *kuollee+n* *rota+n.*
smell+PST+1SG sewer+ELA dead+ACC rat+ACC
'I smelt a dead rat "from" the sewer.'

If the object refers to a signal, then the 'from' case is clearly the unmarked option, as in (54) and (55):

(54) *Kuul+i+n* *puu+sta* *satakiele+n* *laulu+a.*
hear+PST+1SG tree+ELA nightingale+GEN singing+PAR
'I heard the singing of a nightingale "from" the tree.'

(55) *Haisto+i+n* *viemäri+stä* *kuollee+n* *rota+n* *löyhkä+n.*
smell+PST+1SG sewer+ELA dead+GEN rat+GEN stench+ACC
'I smelt the stench of a dead rat "from" the sewer.'

***Kuulu-* 'be audible' and *haise-* 'smell' [phenomenon]**

a) The location of the EXPERIENCER

In the same way as *näky-* 'be visible', these two verbs *kuulu-* 'be audible' and *haise-* '[emit] smell' take the STIMULUS as their subject and leave the EXPERIENCER uncoded; the EXPERIENCER is understood as implicit and generic. Nevertheless, the position of the EXPERIENCER can be expressed by locative elements. The most natural option is to use a 'to' case to designate the location of the EXPERIENCER, thus conceptualizing the perceptive relationship as involving motion of a fictive signal in the direction S → E. The 'to' cases are natural even when the subject NP indicating the STIMULUS designates a concrete entity, not a signal. This feature makes the two verbs different from the corresponding phenomenon verb of visual perception (*näky-* 'be visible'), which allows both options as neutral alternatives.

(56) *Traktori* *kuulu+u* *talo+o+mme* *asti.*
tractor be.audible+PRES.3SG house+ILL+1PL.PX TERM
'You can hear the tractor all the way to our house.'

(57) *Traktori+n* *ääni* *kuulu+u* *talo+o+mme*
tractor+GEN noise be.audible+PRES.3SG house+ILL+1PL.PX
asti.
TERM
'You can hear the noise of the tractor all the way to our house.'

(58) *Roskapönttö* *haise+e* *makuuhuonee+seen* *asti.*
garbage.bin smell+PRES.3SG bedroom+ILL TERM
'The garbage bin smells all the way to the bedroom.'

(59) *Roskapöntö+n* *löyhkä* *haise+e*
garbage.bin+GEN stench smell+PRES.3SG
makuuhuonee+seen *asti.*
bedroom+ILL TERM
'The stench of the garbage bin smells [carries] all the way to the bedroom.'

The 'from' cases are not impossible in this function, either, but since they have such a strong association with the indication of the location of the STIMULUS, this makes the examples systematically ambiguous as to whether it is the EXPERIENCER or the STIMULUS that is situated within the location. However, other elements such as world knowledge may of course disambiguate the examples – for instance, in (56) it would be highly unlikely to interpret (the inside of) the house as the location of the tractor.

b) The location of the STIMULUS

As pointed out above, the most neutral way to indicate the position of the STIMULUS is to use a 'from' case, irrespective of whether the object designates a signal or a concrete entity. In such instances the location of the generic EXPERIENCER can be indicated by using a 'to' case in the same sentence.

(60) *Musiikki* *kuulu+i* *makuuhuonee+sta* *keittiö+ön.*
music be.audible+PST.3SG bedroom+ELA kitchen+ILL
'One could hear music [coming] from the bedroom [all the way] to the kitchen.'

(61) *Radio* *kuulu+i* *makuuhuonee+sta* *keittiö+ön.*
radio be.audible+PST.3SG bedroom+ELA kitchen+ILL
'One could hear the radio from the bedroom [all the way to] to the kitchen.'

(62) *Viemäri+n* *löyhkä* *hais+i* *kellari+sta*
sewer+GEN stench smell+PST.3SG basement+ELA
makuuhuonee+seen.
bedroom+ILL
'The stench of the sewer smelt from the basement [all the way] to the bedroom.'

(63) *Kuollut* *rotta* *hais+i* *kellari+sta*
dead rat smell+PST.3SG basement+ELA
makuuhuonee+seen.
bedroom+ILL
'The dead rat smelt from the basement [all the way] to the bedroom.'

***Kuuntele-* 'listen' and *haistele-* 'smell' [activity]**

a) The location of the EXPERIENCER:

Just like their visual counterpart *katso-* 'look, watch', the agentive perception verbs *kuuntele-* 'listen' and *haistele-* 'smell' favor the 'from' case marking of the location of the EXPERIENCER. The agentive meaning of these perception verbs thus appears to foreground a S → E directionality where the perceptual relationship is understood as involving a fictive energy transmitted by the EXPERIENCER-AGENT:

(64) *Presidentti* *kuuntel+i* *puhe+tta* *parvekkee+lta+an.*
president listen+PST.3SG speech+PAR balcony+ELA+3PX
'The president listened to the speech from his balcony.'

(65) *Haistel+i+n* *kukk+i+en* *tuoksu+a* *ikkuna+sta+ni.*
smell+PST+1SG flower+PL+GEN scent+PAR window+ELA+1SG.PX
'I smelt the scent of the flowers from my window.'

b) The location of the STIMULUS:

The 'from' case is usually the most natural option to express the location of the stimulus, irrespective of whether the object refers to a concrete entity or a signal:

(66) *Kuuntel+i+n* *vinti+ltä* *hiir+ten* *rapina+a.*
listen+PST+1SG attic+ELA mouse+PL.GEN rustling+PAR
'I listened to the rustling of the mice from the attic.'

(67) *Haistel+i+n* *häne+n* *vaatte+i+sta+an*
smell+PST+1SG s/he+GEN cloth+PL+ELA+3PX
tupaka+n *löyhkä+ä.*
cigarette+GEN stench+PAR
'I [tried to] smell the stench of cigarettes from his/her clothes.'

2.4. Interim summary

On the basis of the preceding discussion we can now draw a few conclusions on how Finnish conceptualizes the directionality of a perceptive relationship: **Agentive perception is conceptualized as being directed from the EXPERIENCER-AGENT towards the STIMULUS more naturally than non-agentive perception.** This is the case in all sensory domains studied, and can be explained by the conceptualization of agentive perceptive relationships as involving a (fictive) energy transmitted by the EXPERIENCER-AGENT towards the STIMULUS in analogy with canonical agentive relationships where the agent directs a force towards the patient and the patient undergoes a change as the result of this.

If the perception involves the acquisition of information or a mental content from the STIMULUS by the EXPERIENCER, or if the STIMULUS is a signal instead of a concrete entity, then the directionality STIMULUS → EXPERIENCER is more natural than otherwise.

A difference between the sensory domains can also be found: the STIMULUS of a visual relationship is (more naturally than the STIMULUS of hearing or smelling) understood as a concrete entity, not a signal. In the other domains studied, the STIMULUS is more canonically a signal (a sound or a smell) in motion towards the EXPERIENCER. This distinction motivates the greater availability of the directionality STIMULUS → EXPERIENCER in the domains of hearing and smelling, as opposed to sight.

3. Fictive motion and cognitive change motivating the use of the directional cases in expressions of a spatio-cognitive transfer

3.1. Introduction

A common linguistic way of representing relationships between human beings and their surroundings is to conceptualize the human participants as

constituting a **reference point** surrounded by a **dominion**, which is defined as a "conceptual region to which a particular reference point affords direct access" (see Langacker 1993: 6). In this section I study some ways in which the interaction between **cognitive dominions** and space is reflected in the Finnish language. The term *cognitive dominion* refers to an abstract dominion surrounding a sentient reference point, occupied by entities that participate in a cognitive relationship with the sentient reference point. It comprises entities the reference point conceives at a particular point of time, for instance by perceiving them or being aware of them.

Cognitive relationships bear a close resemblance to perceptive ones, and so do the semantic roles of their participants. In relationships involving a cognitive dominion, we can distinguish an EXPERIENCER who (in Talmy's terminology) *cognizes*, or, interacts cognitively with, other entities, which have the function of a STIMULUS. In general, the STIMULUS enters the cognitive dominion of an EXPERIENCER when the EXPERIENCER becomes aware of it, and leaves the cognitive dominion when the EXPERIENCER becomes unaware of it. In the Finnish system, abstract motion of the STIMULUS with regard to a cognitive dominion often correlates with its fictive motion in space. A STIMULUS that enters a cognitive dominion fictively moves away from its spatial location, which is then referred to by a 'from' case. Correspondingly, a STIMULUS that leaves a cognitive dominion fictively moves into its spatial location, which is referred to with a 'to' case. For instance, in Finnish one can *find* or *buy* things "from" places and *leave* or *forget* them "into" places, even though no actual spatial motion takes place.

3.2. Transfer of knowledge and the Finnish local cases

In addition to spatial meanings, the Finnish local cases are used to express more abstract relations as well. These include, among others, cognitive relationships where mental content is transferred into or out of the cognitive dominion of a sentient being. In examples (68) and (69) there is mental content moving between two sentient participants, which are therefore referred to by directional local cases.

(68) *Elmeri+lle* *tul+i* *käsky* *Liisa+lta.*
Elmeri+ALL come+PST.3SG order Liisa+ABL
'Elmeri received an order from Liisa.'

(69) *Elmeri* *kuul+i* *jutu+n* *Liisa+lta*
Elmeri hear+PST.3SG story+ACC Liisa+ABL
'Elmeri heard the story from Liisa.'

Cognitive transfers do not always require interaction between two sentient participants. An EXPERIENCER may acquire mental content from different sources, including inanimate objects, as in (70) and (71).

(70) *Elmeri luk+i vitsi+n lehde+stä.*
Elmeri read+PST.3SG joke+ACC paper+ELA
'Elmeri read a/the joke in ["from"] the paper.'

(71) *Elmeri tarkist+i hevose+n iä+n hampa+i+sta.*
Elmeri check+PST.3SG horse+GEN age+ACC tooth+PL+ELA
'Elmeri checked the horse's age from its teeth.'

In (70) and (71) the EXPERIENCER acquires information by (visually) observing a concrete object, the newspaper or the horse's teeth. Interestingly, the linguistic expression that refers to this concrete object is coded with a 'from' case and thus conceptualized as a source from which an abstract mental content moves to the EXPERIENCER. A 'from' case is a general way of coding the spatial location of the STIMULUS that enters the cognitive dominion of the EXPERIENCER. Vice versa, when (a mental representation of) the STIMULUS exits the cognitive dominion of the EXPERIENCER (when the EXPERIENCER becomes unaware of it), then a 'to' case marks its spatial location. Again, actual spatial motion is not a prerequisite for the use of the directional cases. The following examples show that the system works even if the STIMULUS is a concrete entity that is not moving in space away from or into its location.

(72) *Löys+i+n kirja+n pöydä+ltä.*
find+PST+1SG book+ACC table+ABL
'I found a/the book on ["from"] the table.'

(73) *Kadot+i+n tytö+n väkijoukko+on.*
lose+PST+1SG girl+ACC crowd+ILL
'I lost the girl in ["into"] the crowd.'

The 'to' cases (illative and allative) are used with many malefactive verbs that designate a situation where the EXPERIENCER loses its cognitive contact with the STIMULUS. The following examples show that it does not matter whether this is intentional as in (74) or not ((75) and (76)).

(74) *Jät+i+n koira+n koppi+in+sa.*
leave+PST+1SG dog+ACC doghouse+ILL+3PX
'I left the dog in ["into"] its doghouse.'

(75) *Unohd+i+n koira+n koppi+in+sa.*
forget+PST+1SG dog+ACC doghouse+ILL+3PX
'I forgot [left unintentionally] the dog in ["into"] its doghouse.'

(76) *Hukkas+i+n avaime+n kassi+in.*
lose+PST+1SG key+ACC bag+ILL
'I lost the key in ["into"] the bag.'

The opposite direction shows up with verbs that indicate the acquisition of information (77) or a possession (in a broad sense in (78) through (80)) and take directional 'from' marked locatives.

(77) *Lu+i+n* *artikkeli+si* *lehde+stä.*
read+PST+1SG article+ACC.2SG.PX paper+ELA
'I read your article in ["from"] the paper.'

(78) *Ost+i+n* *kokoelma+n* *kirjakaupa+sta.*
buy+PST+1SG collection+ACC bookstore+ELA
'I bought the collection at ["from"] the bookstore.'

(79) *Ost+i+n* *talo+n* *Espanja+sta.*
buy+PST+1SG house+ACC Spain+ELA
'I bought a house in ["from"] Spain.'

(80) *Poliisi* *pidätt+i* *varkaa+n* *puisto+sta.*
police arrest+PST.3SG thief+ACC park+ELA
'The police arrested the thief in ["from"] the park.'

In (77), what moves is again only a mental content, whereas in (78) it is possible to assume that the 'from' case marking reflects the (implicit) meaning that the speaker took the book away from the bookstore after buying it (as is in fact argued by Hakulinen 1979). However, as example (79) shows, spatial motion is not a prerequisite for the use of the 'from' cases in expressions of possession; a mere change in the possessive relationship is sufficient. Example (80) shows that this usage extends to expressions of general control.

In sum, what the above examples show is a widespread and productive system of conceptualization where cognitive dominions are in interaction with the spatial surroundings of the EXPERIENCER. An entity that enters a cognitive dominion is conceived as fictively moving away from its spatial location. An entity that exits a cognitive dominion is conceived as fictively moving into its spatial location. This usage covers not only expressions of actual sensory perception (discussed in Section 2) but also expressions of more abstract mental relationships where the verb has no straightforward sense of indicating interaction with one's environment but focuses on the cognitive dominion itself.

3.3. Subjective directionality in expressions of a cognitive change

Similar uses of the directional cases occur in expressions of a change of state. These involve an UNDERGOER, a sentient entity that either gains or loses consciousness. With Finnish locatives referring to the spatial position of the UNDERGOER, it is quite typical to use 'from' cases if the UNDERGOER gains consciousness as in (81) and (82), and 'to' cases if it loses consciousness as in (83) and (84).

(81) *Heräs+i+n* *sohva+lta.*
wake-up+PST+1SG sofa+ABL
'I woke up on ["from"] the sofa.'

(82) *Havahdu+i+n* *piha+lta.*
wake-up+PST+1SG yard+ABL
'I woke up in ["from"] the yard.'

(83) *Nukahd+i+n* *sohva+lle.*
fall.asleep+PST+1SG sofa+ALL
'I fell asleep on ["onto"] the sofa.'

(84) *Sammu+i+n* *lattia+lle.*
pass.out+PST+1SG floor+ALL
'I passed out on ["onto"] the floor'.

These examples show that gaining consciousness involves fictive motion away from the spatial position of the UNDERGOER, and that losing consciousness involves fictive motion into the spatial position of the UNDERGOER. The current examples resemble the ones discussed in Section 2 in that they do not imply actual motion by the UNDERGOER away or into its location after the cognitive change of state has taken place. They also follow a similar conceptualization based on fictive motion where a change in the state of consciousness of the UNDERGOER is represented as fictive motion with respect to its spatial location.

An extreme instance of this usage are examples such as (85) and (86) where an animate entity dies and thus ceases to exist. Such expressions seem to combine a cognitive change of state and an existential change (i.e., when an entity dies it ceases to exist; cf. Huumo 2006).

(85) *Mummo* *kuol+i* *sairaala+an.*
grandma die+PST.3SG hospital+ILL
'Grandma died in ["into"] the hospital.'

(86) *Kettu* *ammu+tt+i+in* *pesä+änsä.*
fox shoot+PASS+PST+PASS den+ILL.3PX
'The fox was shot in ["into"] its den.'

3.4. Inanimate "undergoers"

The above argumentation has been based on the assumption that the UNDERGOER of the change is animate. However, this is not always the case, as shown by (87) through (89).

(87) *Auto* *ruostu+i* *pello+lle.*
car rust+PST field+ALL
'The car rusted on ["onto"] the field.'

(88) *Leipä* *kuivu+i* *pöydä+lle.*
bread dry+PST.3SG table+ALL
'The bread dried on ["onto"] the table.'

(89) *Vene* *palo+i* *luola+an.*
boat burn+PST.3SG cave+ILL
'The boat burned in ["into"] the cave.'

In these examples, the UNDERGOER is inanimate and clearly unable to enter a "new state of consciousness" as the result of the change designated by the verb. Rather, a fundamental change of state takes place where the UNDERGOER becomes useless or unavailable, or even ceases to exist. Again, 'to' cases are used in the above examples, contrary to the general principles of existential locative case marking which would suggest the opposite directionality (e.g., when a boat burns, it ceases to exist, and thus a 'from' case would be expected).

What distinguishes the current examples from corresponding canonical existentials is that canonical existentials conceptualize the cessation of existence as a disappearance of the entity from its location (thus a 'from' case is used). In the above examples, the UNDERGOER is conceptualized as remaining in its location after undergoing a change of state: the remains of the rusting car, the drying bread and the burning boat remain at the location, which is thus not conceived of as becoming empty during the event. We can see this by comparing (89) with (90), which differs from it only in case marking ('to' vs. 'from').

(90) *Vene* *palo+i* *luola+sta.*
boat burn+PST.3SG cave+ELA
'The boat burned [and vanished] from the cave.'

In (89), the boat, when burning to ashes, is conceptualized as "disappearing into" the cave: its change of state has taken place inside the cave, and after it has been completed the boat cannot be taken away from the cave in its original form of existence. Example (89) thus resembles our earlier examples with animate EXPERIENCERS undergoing a change of consciousness. Example (90), on the other hand, represents another possible conceptualization of the situation: when the boat burns to ashes, it ceases to exist and "disappears from" the cave, leaving the cave empty.

3.5. Aspectual meanings of directional vs. static cases

As Hakulinen (1979: 526) has pointed out, there are also aspectual factors at play in the extensive use of directional local cases in change-of-state expressions. This becomes clear if we compare our examples of directional cases with variants where a static ('in'/'at') case is used instead. In general, static cases would be a possible alternative to the dynamic ones of our

examples, but a static case is understood as indicating a more autonomous and independent setting of the event, with a much less intimate relationship with the event itself. In general, 'to' cases have the function of setting a spatial but also a secondary temporal boundary for the event, whereas static cases do not temporally bound the situation. Thus in (91) the static adessive *pihalla* 'in the yard' does not set spatiotemporal boundaries for the event of 'running', whereas the allative *pihalle* 'into the yard' does exactly this: the event reaches its endpoint when the girl enters the yard, and is thus telic.

(91) *Tyttö* *juoks+i* *piha+lla ~ piha+lle.*
girl run+PST.3SG yard+ADE~ALL
'The girl ran ~ was running in the yard [ADE].'
'The girl ran into the yard [ALL] .'

As noted above, many change-of-state expressions that take directional locatives also allow static locatives as an alternative. If the change-of-state verb is indisputably telic, such as 'die', then the nature of the locative element does not determine its aspectual interpretation even though there may be other differences between static and directional locatives: in (92), the connection between the locative and the verb is stronger if the directional case is used.

(92) *Potilas* *kuol+i* *sairaala+an ~ sairaala+ssa.*
patient die+PST.3SG hospital+ILL~INE
'The patient died in [~"into"] the hospital.'

In (92), the inessive-marked *sairaalassa* merely indicates a setting of the event, whereas the illative-marked *sairaalaan* represents a more intimate relationship between the event and is location, even though the exact nature of this relationship is indeterminate. If the change-of-state verb itself is not indisputably telic but may be interpreted either as telic or atelic (indicating a gradual change with no specific endpoint), then the locative again determines the aspectual interpretation:

(93) *Maratoonari* *väsy+i* *tie+llä ~ tie+lle.*
marathoner tire+PST.3SG road+ADE~ALL
'The marathoner tired [more and more] on the road [ADE].'
'The marathoner tired [and stopped] on the road [ALL].'

The verb *väsyä* 'tire' can be interpreted as either an abrupt change of state or a gradual process with no particular endpoint. With the static adessive case the latter interpretation is possible, but the directional allative 'to' case specifically means that the runner became tired and remained on the road. According to Hakulinen (1979: 525), this usage reflects the idea that Finnish pays special attention to the end result of events: as the end result of the event, an entity appears (in (93), the marathoner stops) in its location.

3.6. Interim summary

The Finnish system of conceptualizing changes of state includes a deep interplay between cognitive, circumstantial and spatial location: an entity that interacts with the cognitive dominion around a sentient participant, or an entity that undergoes a fundamental, often irreversible change of state, is represented as fictively moving with regard to its spatial surroundings. An entity that exits a cognitive dominion, loses consciousness, or undergoes a negative change of state, is represented as fictively moving into its spatial location. Correspondingly, an entity that enters a cognitive dominion or gains consciousness is represented as leaving its spatial location.

4. General conclusions

The above discussion of both perception verbs and more purely cognitive verbs suggests that there is a productive strategy in Finnish where the cognitive dominion of the cognizer is conceptualized analogously to spatial locations.

In many expressions, and rather systematically throughout the system, abstract motion (a cognitive transfer) into or out of a cognitive dominion brings about a conceptualization that involves fictive motion in the spatial domain. In such conceptualizations, motion into the cognitive dominion equals fictive motion away from the entity's actual spatial location, and vice versa.

In order to explain the relevant usages of directional elements (cases and adpositions) one needs to pay attention not only to the locative relationship and its temporal extent – as has been the case in most of the earlier literature – but especially to the cognitive transfer indicated by the verbs that select such directional locatives, but finding out the actual range of such usages still remains a challenge for future research.

Abbreviations

ABL – ablative
ACC – accusative (the so-called genitive accusative)
ADE – adessive
ALL – allative
ELA – elative
GEN – genitive
ILL – illative
INE – inessive
NEG – negation verb
NOM – nominative
PAR – partitive
PASS – passive
PL – plural
PRES – present tense
PST – past tense
Px – (Xth person) possessive suffix
SG – singular
TERM – terminative particle

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